

**REQUEST FOR ARCHITECTURAL & ENGINEERING  
DESIGN SERVICES**

**CELL HALL UPGRADES**

**WISCONSIN DEPARTMENT OF CORRECTIONS**

**GREEN BAY CORRECTIONAL INSTITUTION**

**VILLAGE OF ALLOUEZ, WI**

**FEBRUARY 2014**

**PROJECT 14A3Q**

## **Project Background and Purpose**

This project will provide for planning, design and installation of current electrical/lighting, electronics, plumbing & heating and ventilation systems in both the North and South Cell Halls at Green Bay Correctional Institution (GBCI). The project will enhance the security of the institution by improving communications, installing modern day security fixtures and upgrading utility systems that are outdated and add to security risk. This project will save on utility costs as the new fixtures will be more energy efficient. It was enumerated in the DOC 2013-15 Capital Budget.

GBCI is a maximum security facility. The current utilities and fixtures were installed in the 1950's and 1960's. The original construction was 1898 and 1910. Each of the two cell halls consist of 296 cells on four levels that house approximately 355 inmates. About 60 cells are double-bunked in each hall.

The electrical system is designed to 1950's standards. Four cells are on a single circuit, most of which have not yet been converted to GFCI. A problem in one cell causes outages in adjacent cells, requiring significant security inputs to move numerous inmates for a single electrical failure. The lighting is still of incandescent type. Energy savings would be realized by an upgrade to energy efficient lighting. Additionally, the light and outlet fixtures are not security rated; they are often used to hide contraband. Security rated components would eliminate these hiding places. Most of the electrical troughs, which run throughout the corridors, are heavily rusted, to point of rusting-through in significant areas. These troughs serve as the electrical-system ground. If these rust completely through electrical wiring will be exposed.

This project would enhance the security of the cell halls by adding an electronic intercom system. This system would significantly improve communication and safety of inmates by providing a way to contact staff during medical or other emergencies.

Replacing the current plumbing system with modern security fixtures would dramatically reduce water and sewer costs, improve security, reduce/eliminate exposure to raw sewage, and reduce maintenance costs. The supply and sewage pipes are very old and develop leaks on a continual basis. Each cell has a toilet and sink. The toilets are all 3.5 to 4.0 gallons per flush. The current system provides no staff control over how much water can be used by inmates living in the cell halls.

Inmates frequently misuse water. When using the toilet, they constant-flush, often flushing 10 to 30 times per use. They will prop the sink faucets open to keep the water running for the purpose of doing laundry, cooling beverages, or to cool off. It also enables massive sewage overflows as some inmates will constant-flush whenever a sewer-main gets clogged, causing sewer water to flow out of cells and off the tiers to floors below. Modern fixtures and controls would solve these problems and could save about ½ million gallons of water per month (about \$5,400/month for water & sewer). A water control system would also greatly reduce the ability of inmates to clog the sewer mains by minimizing their ability to flush contraband. It would put the control of the water system in the hands of security instead of the individual inmates. The toilets are porcelain which, when broken, pose significant security risks. The sinks are cast iron and have rusted to

the point that none of the overflows or vents work properly. A combination (toilet/sink) unit would also add valuable floor space to the cells.

The heating/ventilation system is over 60 years old and uses 4 heaters in each cell hall. These pull in a minimum of 50% outside air in the winter. The exhaust fans on the roof pull out the difference. The steam heat system should be updated to provide reliability for these critical housing units. The controls system and heaters should be updated with modern equipment that uses the exhaust to preheat incoming air and with digital controls interlocked with the windows and exhaust fans to create a more reliable and energy efficient system. There is significant inherent waste of heating energy in these cell halls.

### **Project Description**

This project will replace and upgrade the electrical/lighting, electronic, plumbing, and heating/ventilation in both North and South Cell Halls. Each of the two cell halls consist of 296 cells that house approximately 355 inmates. This project will replace and upgrade the electrical/lighting, electronic, plumbing, & heating/ventilation in both the North and South Cell Hall.

The construction for this project must be phased because only a limited number of cells may be vacated at a time.

### **Scope of Services**

The A/E consultant team will be selected, based on qualifications, to provide pre-design services for this project.

The design process is expected to include input from GBCI correctional and operational staff, Department of Corrections Division of Adult Institutions security staff and management, and Department of Corrections Division of Management Services Bureau of Budget & Facilities Management staff. The A/E consultant team will be expected to submit project plans for code review and obtain Conditional Approval from Wisconsin Department of Safety & Professional Services, Industrial Services Division. Since the proposed site is within a secure correctional perimeter, the design will include a specific plan for site security, construction contractor access, and material staging.

In accordance with *DFD Policy and Procedure Manual for Architects/Engineers and Consultants*, the A/E consultant team will be required to provide a Design Report in a timely manner and format along with preliminary design documents for DOA and DOC. Final Review design and contractor bid documents will be requested in a future contract.

Refer to the *DFD Invitation for Consultant Services*, for AE Qualification Requirements.

Note that per the *DFD Policy and Procedure Manual for Architects/Engineers and Consultants*, following services will not be included in the scope of services:

- Environmental Assessment and/or EIS, if required, will be contracted separately
- Independent 3<sup>rd</sup> Party Commissioning will be contracted separately.

### **Project Schedule**

Project Approval	October 2014
A/E Selection	March 2014
Program Statement	June, 2014
Design Report	October, 2014
Bid Opening	May 2015
Construction Start	July 2015
Substantial Completion	July 2016

### **Project Budget**

Construction  
Design and Other Fees  
DFD Management  
Contingency  
Commissioning

Total Project Budget           \$ 3,750,000

### **Space Tabulation**

<u>Space ID</u>	<u>Space Description</u>	<u>Quantity</u>	<u>ASF</u>	<u>Total ASF</u>
1001	NCH Cells Tier A-D	296	80	23,680
1002	NCH Control Station	1	140	140
1003	NCH Sally Port/Control Station	1	30	30
1004	SCH Cells Tier E – H	296	80	23,680
1005	SCH Control Station	1	140	140
1006	SCH Sally Port/Control Station	1	30	30
Total Project Net Square Footage (Renovation)				47,700 ASF

### **General Requirements**

#### **Special Considerations**

This project will be occurring inside a maximum security correctional institution while the facility is at full operating capacity. The integrity of institution operations must be accounted for at all times for safety and security reasons. The building elements shall be constructed to meet the ADA requirements of the Uniform Federal Accessibility Standard (UFAS). Contractor tool

control and security escorts will be necessary. AE and Contractor access through the secure perimeter gate during count times and institution emergencies may be restricted.

Walls in inmate areas will remain masonry; staff use only areas will be drywall. Surface finishes will be low maintenance and high durability. Appropriate security measures must be provided for in all areas of the facility where inmate activity is present.

Water closets, lavatories, showers, sinks and such will be of types and material consistent with their detention and/or medical use, having faucets, drains and accessories as equally appropriate.

Lighting will be a combination of vandal proof, maximum security and standard non-security fixtures. Maximum security fixtures will be needed in areas where inmates will generally be unsupervised.

Door controls and intercom systems shall be monitored at the officers' station. The CCTV system shall consist of cameras that will be routed back to the central control in the administration building. Some cameras will be monitored locally at the officer's station. The PA system shall be upgraded.

#### Building Utilities

- Existing utilities may be need to re-routed.
- Evaluate existing utility service capabilities for electrical, communications, fire protection, water, and storm and sanitary systems.
- Fire detection systems, HVAC controls, and security systems should integrate with existing facility systems for "seamless" building controls.

#### WEPA Requirements

In accordance with the Wisconsin Environmental Policy Act (WEPA) and Wisconsin Administrative Code DOC 335, this project may require a Type II Environmental Assessment that will be contracted separately, if required.

#### Sustainability

This project must meet the DFD *Sustainable Facilities Standards*. This project is not intended to seek LEED™ certification.

#### Reference Documents

- GBCI Site Plan
- Photos of Cell Hall & Service Areas